

[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2007-27230; Directorate Identifier 2007-NE-04-AD]

Amendment 39-15322; AD 2007-26-20]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney (PW) PW4164, PW4168, and PW4168A

Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for PW PW4164, PW4168, and PW4168A turbofan engines with certain low pressure turbine (LPT) stage 4 disks, part number (P/N) 51N404, installed. This AD requires removing certain LPT stage 4 disks, listed by serial number at the next piece-part exposure or within 7,500 cycles-since-new (CSN). This AD results from a report of improperly manufactured LPT stage 4 disks. We are issuing this AD to prevent an uncontained engine failure due to low-cycle fatigue (LCF), which could result in damage to the airplane.

DATES: This AD becomes effective [insert date 35 days after date of publication in the FEDERAL REGISTER].

ADDRESSES:

The Docket Operations office is located at Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

FOR FURTHER INFORMATION CONTACT: V. Rose Len, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; telephone (781) 238-7772; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR part 39 with a proposed AD. The proposed AD applies to PW PW4164, PW4168, and PW4168A. We published the proposed AD in the *Federal Register* on May 21, 2007, (72 FR 28459). That action proposed to require removing certain LPT stage 4 disks, P/N 51N404, listed by serial number in the proposed AD, at the next piece-part exposure, or within 7,500 CSN, whichever occurs first.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the comment received.

Pratt & Whitney proposes that we not write an AD. Pratt & Whitney states that they performed additional testing for low-cycle fatigue (LCF). They state the testing shows the disks with the 1-hour heat treatment are equivalent to the disks treated with a 4-hour heat treatment. We do not agree. The data that PW presents to us doesn't conclusively show the 1-hour heat-treat LCF capability is equivalent to the 4-hour heat-treat disks. We didn't change the AD.

Conclusion

We have carefully reviewed the available data, including the comment received, and determined that air safety and the public interest require adopting the AD as proposed.

Costs of Compliance

We estimate that this AD will affect 11 engines installed on airplanes of U.S. registry. We also estimate that it will take about 250 work-hours per engine to perform the required action, if not done at piece-part exposure, and that the average labor rate is \$80 per work-hour. Required parts will cost about \$186,288 per engine. Based on these figures, we estimate the total cost of the AD to U.S. operators to be \$2,269,168.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress

charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866;
- (2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary at the address listed under ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2007-26-20 **Pratt & Whitney:** Amendment 39-15322. Docket No. FAA-2007-27230; Directorate Identifier 2007-NE-04-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective [insert date 35 days after date of publication in the FEDERAL REGISTER].

Affected ADs

(b) None.

Applicability

(c) This AD applies to Pratt & Whitney PW4164, PW4168, and PW4168A turbofan engines with certain low pressure turbine (LPT) stage 4 disks, part number (P/N) 51N404, that have a serial number (S/N) listed in the following Table 1, installed. These engines are installed on, but not limited to, Airbus A330-200 and A330-300 series airplanes.

Table 1 – Affected LPT Stage 4 Disks by Serial Number

LPT Stage 4 Disk Serial Numbers			
CLDLC01142	CLDLC01146	CLDLC01151	CLDLC01183
CLDLC01143	CLDLC01148	CLDLC01152	CLDLC01185
CLDLC01144	CLDLC01149	CLDLC01181	CLDLC01186
CLDLC01145	CLDLC01150	CLDLC01182	CLDLC01187

Unsafe Condition

(d) This AD results from a report of improperly manufactured LPT stage 4 disks. We are issuing this AD to prevent an uncontained engine failure due to low-cycle fatigue, which could result in damage to the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed at the next piece-part exposure after the effective date of this AD or within 7,500 cycles-since-new, unless the actions have already been done.

Removing the LPT Stage 4 Disk

(f) Remove from service any LPT stage 4 disk that has a S/N listed in Table 1 of this AD.

Prohibition Against Installing an Affected Disk

(g) After the effective date of this AD, do not install any disk, P/N 51N404, that has a S/N listed in Table 1 of this AD or any disk removed as specified in paragraph (f) of this AD except as allowed by paragraph (h) of this AD.

Alternative Methods of Compliance

(h) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Special Flight Permits

(i) Under 14 CFR part 39.23, we are prohibiting the special flight permits for this AD.

Related Information

(j) Contact V. Rose Len, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; telephone (781) 238-7772; fax (781) 238-7199, for more information about this AD.

Material Incorporated by Reference

(k) None.

Issued in Burlington, Massachusetts, on December 20, 2007.



Peter A. White,
Assistant Manager, Engine and Propeller Directorate,
Aircraft Certification Service.